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VALVULAR HEART DISEASE

INTERACTION BETWEEN ROSUVASTATIN AND HIGH SENSITIVITY C-REACTIVE PROTEIN ON PROGRESSION OF AORTIC STENOSIS

ACC Poster Contributions
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Background: Aortic stenosis (AS) has been shown to be an active process in which inflammation appears to play an integral part. High sensitivity C-reactive protein (CRP) is a sensitive marker of inflammation. The purposes of this study were to assess the impact of CRP on AS progression, and to assess the effect of rosuvastatin on CRP levels and AS progression.

Method: The ASTRONOMER study is a double-blind placebo-controlled multi-center trial to assess the effect of rosuvastatin on the progression of mild to moderate AS. CRP was measured at baseline, 1 year and end of follow-up.

Results: 269 patients were recruited with 134 randomized to receive rosuvastatin 40mg daily and 135 to placebo. They were followed for a median of 3.5 years. There was a median decrease of 0.33 mg/l in CRP in patients on rosuvastatin compared with a median increase of 0.095 mg/l in patients on placebo (p=0.0023). Elevated CRP > 3mg/l was present in 78 patients. CRP and its interaction with rosuvastatin were assessed by dividing the patients into CRP ≤ 3 mg/l versus > 3 mg/l, and on rosuvastatin versus placebo (Figure). No difference in AS progression was detected in relation to baseline CRP. No interaction between treatment assignment (rosuvastatin versus placebo) and baseline CRP was observed on AS progression.

Conclusions: Elevated CRP is common in patients with AS, but does not impact on AS progression. Rosuvastatin is effective in reducing CRP but does not reduce AS progression irrespective of the baseline CRP levels.